

## PATENT CLAIMS

1. Measuring device for use in process technology, having a central unit (1) for the connection of different measurement modules (2, 3), wherein the central unit contains a central power supply (4), to which the measurement modules (2, 3) can be connected, characterized in that, in the measurement module (2, 3) a module power supply (2', 3') is provided, which generates from the central power supply (4) one or more supply voltage(s) (V<sub>2</sub>, V<sub>3</sub>) required by the measurement module.
2. Measuring device as claimed in claim 1, characterized in that the central power supply (4) can furnish an alternating voltage.
3. Measuring device as claimed in claim 1 or 2, characterized in that the central power supply (4) can furnish a direct voltage.
4. Measuring device as claimed in one of the preceding claims, characterized in that the module power supply (2', 3') includes a transformer.
5. Measuring device as claimed in one of the preceding claims, characterized in that the module power supply (2', 3') includes a switching power supply.
6. Measuring device as claimed in one of the preceding claims, characterized in that the central power supply (4) includes a first induction apparatus (5), and the module power supply (2') includes a second induction apparatus (6).
7. Measuring device as claimed in one of the preceding claims, characterized in that the voltage furnished by the central power supply (4) can be modulated with an information signal.
8. Measuring device as claimed in one of the preceding claims,

characterized in that the measuring device is used in measuring- and/or cleaning- and/or calibration installations, especially also in the field of process automation, for measuring pH-values and/or redox-potentials and/or other process parameters.

9. Measuring device as claimed in one of the preceding claims, characterized in that, in the measurement module (2), a feedback unit (7) is provided, which, from the supply voltage ( $V_4$ ) applied to the measurement module (2), generates a feedback signal (7a), which can be fed to a regulator of the central power supply (4), and influences the supply voltage ( $V_4$ ).

10. Operating method for a measuring device for process technology, having a central unit (1) for the connection of different measurement modules (2, 3), wherein the central unit contains a central power supply (4), to which the measurement modules (2, 3) can be connected, and wherein a module power supply (2', 3') is provided, wherein one or more of the supply voltage(s) ( $V_2$ ,  $V_3$ ) required by the measurement module is/are generated by the module power supply (2', 3') from the central power supply (4).

11. Operating method as claimed in claim 10, characterized in that the voltage furnished by the central power supply (4) is modulated with an information signal.

12. Operating method as claimed in claim 10 or 11, characterized in that the supply voltage(s) ( $V_2$ ,  $V_3$ ) is (are) changed during operation.